# UK Patent Application (19) GB (11) 2 164 881 A

(43) Application published 3 Apr 1986

- (21) Application No 8523454
- (22) Date of filing 23 Sep 1985
- (30) Priority data
  - (31) 8423923
- (32) 21 Sep 1984
- (33) GB
- (71) Applicant J Shaw & Co (Jewellers) Limited (United Kingdom), 53 Church Road, Hendon, London NW4 4DU
- (72) Inventors Richard Andrew Shaw **Geoffrey Reginald Hales**
- (74) Agent and/or Address for Service Marks & Clerk. 57-60 Lincoln's Inn Fields, London WC2A 3LS

- (51) INT CL4 B24D 15/02
- (52) Domestic classification **B3D** 100 202 EX U1S 1820 1854 B3D
- (56) Documents cited

GB 1512733 GB 1183643

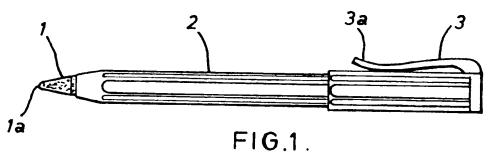
GB 0628516

US 3688450

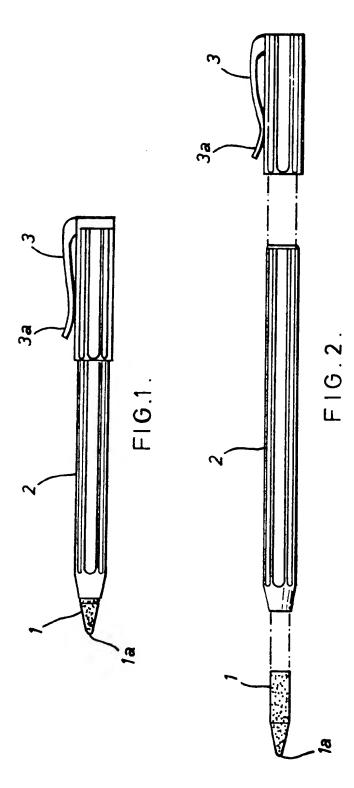
(58) Field of search หรบ

## (54) Abrasive stick

(57) An abrasive stick, particularly for use in repairing the body work of vehicles, comprises a piece (1) of abrasive material having a working end (1a), and held within an elongate casing (2), preferably having a cap (3).







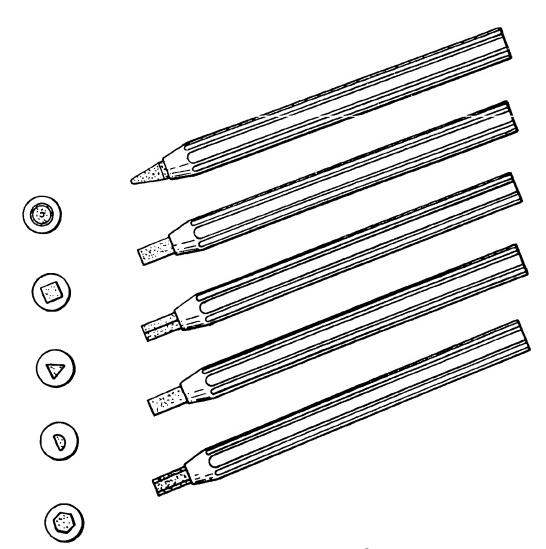
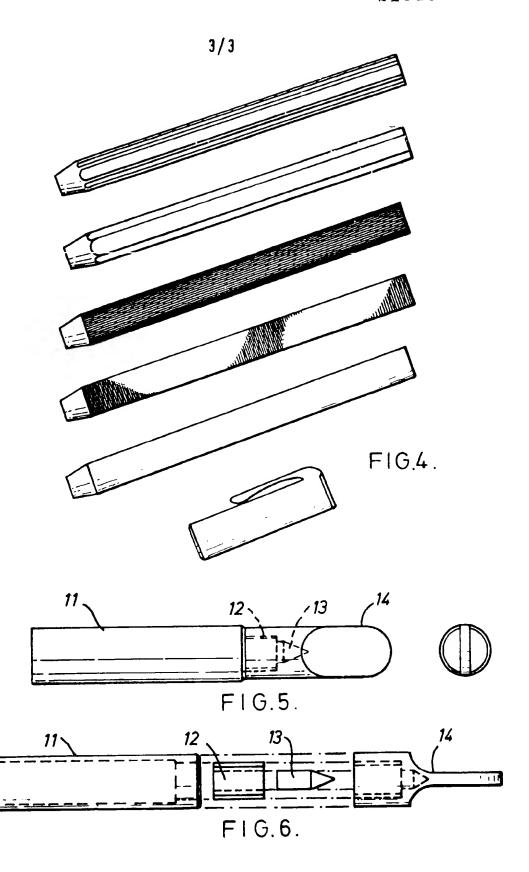


FIG.3.



#### SPECIFICATION

#### Abrasive stick

5 This invention relates to an abrasive stick, particularly but not exclusively intended for use in repairing the bodywork of vehicles.

When the bodywork of a vehicle is damaged by being scratched or due to the impact of a stone or chipping, it must be locally repaired so as to prevent the occurrence of rust at the damaged site. This is usually done by working at the damaged area in some way so as to remove paint flakes and to generally provide a localised surface suitable for subsequent treatment, followed by priming and painting the damaged area with matching paint so as to provide a satisfactory repaired surface.

20 The present invention provides an abrasive stick which will be particularly useful in preliminary working of the damaged bodywork of a vehicle, prior to repainting thereof.

Accordingly, the present invention provides
25 an abrasive stick comprising a piece, which
may be an elongate piece, of abrasive material
held by a generally elongate holder, for
example in the form of a pen, pencil or the
like.

30 The abrasive stick according to the invention may suitably comprise a piece of abrasive material, pointed at at least one end, and held within an elongate casing of for example plastics material so as to give the appearance of a 35 pen, which may be readily held in the hand.

The abrasive stick in the form of a pen may be suitably provided with a cap for fitting over the working end of the stick when not in use.

In another preferred embodiment of the in40 vention, the piece of abrasive material, pointed
at its working end, may be fitted into an insert which is in turn fitted (for example by a
screw thread) into one end of an elongate
casing, the casing being provided with a suit45 able cap.

The piece of abrasive material, in particular the working end thereof, may be of any appropriate shape, depending on the intended use of the abrasive stick, for example it may 50 be round, square, triangular, half round or hexagonal.

The casing within which the piece of abrasive material is contained may be plain, or may for example be grooved or fluted along its length, or be for example of octagonal cross-section, or may for example have a series of circumferential grooves.

The abrasive material itself may be any material suitable for the particular purpose to which the abrasive stick is to be applied. An abrasive material of 30 Grit-360 Grit will usually be suitable.

The invention will be further described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 shows one embodiment of an abrasive stick according to the invention;

Figure 2 shows the component parts of the abrasive stick shown in Fig. 1;

Figure 3 illustrates a series of various possible shapes of the working end of the piece of abrasive material;

Figure 4 illustrates a series of possible designs of the casing within which the piece of abrasive material is contained, and also illustrates a plain design of the casing cap;

Figure 5 shows another embodiment of an abrasive stick according to the invention; and Figure 6 shows the component parts of the 80 abrasive stick shown in Fig. 5.

Briefly, the abrasive stick shown in Figs. 1 and 2 comprises a piece 1 of abrasive material having a working end 1a, and held within elongate casing 2 having a cap 3 provided with a clip 3a. The abrasive piece 1 may be suitably retained in the casing 2 by means of adhesive. Both the casing 2 and cap 3 are made of extruded plastics material, and at least the casing 2 could if desired be of transparent plastics.

The working end of the abrasive piece 1 may be shaped as shown in Figs. 1 and 2, but many other forms are possible as shown in Fig. 3; specifically the end of the piece 1 may have a round, square, triangular, half round, or hexagonal point. Equally, the casing 2 and cap 3 may be fluted as shown in Figs. 1 and 2, but other forms are possible, some of which are shown in Fig. 4; specifically the body of the casing may be fluted, octagonal, longitudinally grooved, circumferentially grooved, or plain.

The abrasive stick shown in Figs. 5 and 6 comprises an elongate casing 11 in the open end of which is fitted, e.g. by a screw thread, an insert 12, into which insert is in turn fitted a piece 13 of abrasive material. The casing 11 has a cap 14 shaped as shown.

The abrasive stick according to the inven-110 tion is particularly intended for use manually, but may be suitably adapted for machine operation.

Also, while the abrasive stick of the invention is particularly intended for use in repairing the bodywork of vehicles, it may find other suitable applications.

The piece of abrasive material may be suitably about 6mm in diameter, and at its working end taper at an angle of about 20° to 120 the tip thereof.

### CLAIMS

- An abrasive stick comprising a piece of abrasive material held by a generally elongate
   holder.
  - 2. An abrasive stick as claimed in claim 1, wherein the piece of abrasive material is an elongate said piece.
- 3. An abrasive stick as claimed in claim 1 130 or 2, comprising a piece of abrasive material,

gB 2 164 881A 2

pointed at at least one end, and held within an elongate casing.

- 4. An abrasive stick as claimed in any of claims 1 to 3, in the form of a pen, provided5 with a cap for fitting over the working end of the stick when not in use.
  - 5. An abrasive stick as claimed in claim 1 or 2, comprising a piece of abrasive material, pointed at its working end, fitted into an in-
- 10 sert which is in turn fitted into one end of an elongate casing, the casing being provided with a cap for fitting over the working end of the stick when not in use.
- An abrasive stick according to claim 1,
   substantially as herein described with reference to, and as shown in, Figs. 1 and 2 or
   Figs. 5 and 6 of the accompanying drawings

Printed in the United Kingdom for Her Majesty's Stationery Office, Dd 8818935, 1985, 4235. Published at The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained